

Civil defence traffic experts calculate that during a planned evacuation approximately 1,000 vehicles per hour pass any given point on each traffic lane. Of these vehicles, about one in ten is a truck or bus. Since evacuation planning calls for every vehicle to be full, the average capacity of each automobile is estimated at five. Trucks and buses will carry approximately thirty.

Using this yardstick, civil defence planners are certain that in the City of Montreal, for instance, with 30 lanes available on 11 exit routes, and with traffic moving at 25 miles per hour, 450,000 people could be evacuated from the downtown area in two hours using 60,000 vehicles. In tests carried out in the United States these estimates have proved to be on the conservative side.

Civil defence also knows from intensive studies that communities surrounding a target city can house a number of evacuees as great as the original population of the town. A town of 5,000 can receive and shelter 5,000 evacuees indefinitely. For shorter periods, considerably larger numbers could be looked after.

As for emergency feeding, civil defence knows from actual tests that one competent organizer, with two skilled cooks, can feed 1,000 people two meals a day, using emergency equipment.

Civil defence is also accumulating great stockpiles of medical and first-aid equipment for emergency use. This material is now being re-located in areas unlikely to be damaged by attack, but close to the places where it would be needed.

In cities and provinces where public support is strong and enthusiastic, civil defence organizations are active and vigorous. Where this public support has been lacking civil defence organized "from the top" has been weak and inconclusive.

In order to promote public support and confidence, the Hon. Paul Martin, the federal cabinet minister responsible for civil defence, Maj.-Gen. F. F. Worthington, Federal Civil Defence Co-

ordinator and other federal, provincial and local civil defence officials have toured the country telling this story. Use has been made of the press, radio, TV and magazines. Displays have been built, films made and conventions addressed. Every device known to the publicist has been used to stir up interest in what is after all a matter of life and death. Civil defence has every intention of pounding away on this subject until every man, woman, and child in this country knows the dangers we face—and knows what he or she can do about them.

There are two things that every citizen can do in civil defence. The first is to learn everything he can to protect himself and his family in case disaster should strike.

The second is to do everything he can as a citizen to ensure that the civil defence organization in his community is strong and active.

Nobody knows whether we will ever be attacked with H-Bombs, but the possibility of attack does exist and to ignore this possibility would be as foolish as ignoring dynamite caps stored in the children's playroom.

Civil defence is, basically, an attempt to organize the human instinct of self-preservation. Civil defence offers to each man a chance to save a life if disaster should occur—his own life.

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# CIVIL DEFENCE AND YOUR LIFE

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## CIVIL DEFENCE AND YOUR LIFE

A few months ago the United Kingdom civil defence organization published a report which said, in effect, that half-a-dozen H-Bombs, accurately planted on Great Britain, would destroy the major part of her population and would render her crushed and helpless. The civil defence office then stood back and waited for the shocked reaction which they confidently expected would engulf them. It didn't. There was barely a ripple. The press ignored the report. The people, apparently, could not have cared less.

In Canada, the civil defence picture is more encouraging. Our cities are widely scattered. We have lots of wide open spaces. More of our people live in rural areas. And we can expect considerably more than the 30 minutes' warning which is the best the British people can hope for.

But the fact remains that four and a half million people—more than a quarter of Canada's entire population—live and work in eight major commercial, manufacturing and port cities from coast to coast. Of these eight cities, three have strong civil defence organizations. From what we have learned of the H-Bomb, we know that single H-Bombs, dropped without warning on these eight cities would wipe out a large proportion of our people and would cripple us as a nation.

This is what would happen if we did nothing about it. This is what would happen, in other words, if we had no civil defence organization, no plans for disaster and no ability to carry out these plans once they were made. It has frequently been suggested that Canada has no such plans, no organization, no ability to cope with disaster. The truth is that civil defence planning is going ahead just as fast as technical data is made available to us by the civil defence organizations of the United States and the United Kingdom and by the Canadian Defence Research Board. These data are studied by top-

level civil defence chiefs from federal, provincial and municipal governments and the plans that result are made public just as soon as we can be sure they are practical and workable.

Civil defence planning in Canada is based on one hard inescapable fact of the hydrogen age: the only way to survive is not to be there when it happens. In an H-Bomb attack, therefore, a city has two alternatives—evacuate or die.



NO CERTAIN DEFENCE  
WITHIN 50 MILES

We know, from a study of available data about the H-Bomb, that no shelter, no matter how strong or how deep, will provide sure protection closer than six miles to an H-Bomb burst. Evacuation, therefore, is not the best of several alternatives. It is the only alternative with any hope of saving life.

It has been suggested that civil defence has no definite plan for an H-Bomb disaster. This is absolutely untrue. At the federal level, civil defence has worked out a basic plan to save life under H-Bomb attack. True, this plan must be adapted to the local circumstances of each individual city, but in most cities this individual planning is either beginning or well underway. To date there has been no evidence that any of these cities cannot evacuate their people to safety within the time limits our early warning devices such as the Distant Early Warning Line and the Mid-Canada Line will give us.



EVACUATION BEYOND 50 MILES

Under the first step of the federal civil defence plan, women, children, the aged and sick as well as staffs of hospitals, schools and other priority groups will be removed from "target areas" as soon as the danger of war becomes acute. These people will be taken

well away from the city and kept at a safe distance in nearby communities as long as necessary. This will mean that about a third of the normal population of the city will be "thinned out" and that step number two will be made faster and easier.



A NEW MENACE—"FALLOUT"

from the city centre.

A new problem posed by the H-bomb—one not encountered with the smaller atomic bombs—is that known as "fallout", an effect of the blast which can have just as deadly consequences as the original detonation.

When an H-Bomb goes off near the ground, great quantities of dust are sucked high into the air. This dust becomes "radioactive"—that is, it gives off dangerous rays similar to X-rays. If a person is exposed to enough of these rays he may become sick. Or he may die.

As this dust rises into the air, it is scattered by the winds over an area up to 40 miles in width and 200 miles in length. Everything in this area may be exposed to radiation. People, livestock and crops can be affected.



SHelter  
SEATED CARPETED  
WATER FOOD  
DUST PARTICLES SCATTERED  
BY WINDS 40 MILES IN WIDTH  
AND 200 MILES IN LENGTH

Step number two—removing every remaining person from the target area—is to be carried out when we are reasonably certain that an attack is being launched over the North American continent. Everyone will be taken at least 50 miles

Study of the fallout problem shows that if people stay indoors—preferably in a basement or an earth-covered shelter—they are safe from fallout. They may have to stay in shelter for several days. This is certainly not going to be comfortable. But it should be preferable to

dying from radiation sickness. Civil defence is not offering a picnic. It is offering a way to stay alive.

Civil defence is convinced that if it is a question of "stay in and live—go out and die", most people will manage to stay inside, conserve their protected food supplies, their sealed drinking water and their "uncontaminated" clothing. They may be uncomfortable—but they will be alive.

Summed up, there are two stages of danger from the H-Bomb. The first—heat, blast and immediate radiation—may kill everything within a six-mile radius of the blast. Many others will be killed or injured as far as ten miles from the bomb. The second—fallout—may kill or injure unprotected people anywhere up to 200 miles from the bomb blast but those under cover will be safe 50 miles away.

There are two answers to these two dangers—evacuation and shelter. Civil defence does not claim that these answers mean everyone will be saved. Civil defence does believe that these answers mean the vast majority of our people can be saved.

There is another problem in civil defence—what to do with the thousands of people evacuated from target areas. Some of the most experienced and hard-headed welfare people in Canada have worked for months to solve this problem. It is truly a mammoth job and nobody is suggesting that it is going to be a holiday for anybody. But civil defence is convinced that these people can be housed, not comfortably, but livably; they can be fed, not well, but adequately; they can be returned to their families and relocated in suitable areas.

A great deal of publicity has been given to armchair strategists who have decided that evacuation is not a practical possibility. Any serious study of the problem will reveal that a planned evacuation can take the great majority of downtown city dwellers to relative safety in the time available.